

Title (en)
DROPLET VOLUME MODULATION TECHNIQUES FOR INK JET PRINTHEADS

Title (de)
TRÖPFCHENVOLUMENMODULATIONSTECHNIKEN FÜR EINEN FARBSTRAHLDRUCKKOPF

Title (fr)
TECHNIQUES DE MODULATION DU VOLUME DES GOUTTES POUR TETES D'IMPRESSION A JET D'ENCRE

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Application
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Abstract (en)
[origin: WO9426522A1] An ink jet printhead (10) and an associated method for operatively driving the ink jet printhead (10) to cause the ejection of a volume modulatable droplet from an ink-carrying channel (32) thereof partially defined by a piezoelectric sidewall actuator (34). The voltage (53) applied across the sidewall actuator (34) is raised from a rest voltage (54) to a first voltage to deflect the sidewall actuator (34) from a rest position to a first position and maintained at the first voltage for a first period of time. The voltage applied across the sidewall actuator (34) is then dropped to a second voltage, lower than the rest voltage, to deflect the sidewall actuator from the first position, past the rest position, to a second position and maintained at the second voltage for a second period of time. The voltage applied across the sidewall actuator (34) is then returned to the rest voltage (54) to deflect the sidewall actuator (34) back to the rest position. The first and second time periods are selected, relative to each other, to select a droplet volume for ink ejected from the ink-carrying channel. The voltage applied across the sidewall actuator is then returned to the rest voltage, thereby causing the ejection of a droplet of ink having the selected droplet volume.

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